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*NHTSA 2002-11398-1*

October 11, 2001

**BY CERTIFIED MAIL**

The Honorable Jeffrey W. Runge, Administrator  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Re: ***Petition for Rulemaking Re: FMVSS 500***

Dear Dr. Runge:

Pursuant to the provisions of 49 C.F.R. Part 552, Global Electric Motorcars, LLC ("GEM"), a DaimlerChrysler Company, hereby petitions the National Highway Traffic Safety Administration ("NHTSA" or "Agency") to institute a rulemaking proceeding to amend and clarify the requirements of 49 C.F.R. § 571.500, Federal Motor Vehicle Safety Standard No. 500 ("FMVSS 500"), and the related definition of *Low-speed vehicle* contained in 49 C.F.R. § 571.3.

**I. SUMMARY OF REQUESTED NHTSA ACTION:**

GEM requests that NHTSA amend the definition of *Low-speed vehicle* found at 49 C.F.R. § 571.3 to include "trucks" or vehicles designed primarily for the transportation of property or special purpose equipment, so long as they meet the existing vehicle speed limitations of the definition.

The request presented by Petitioner is intended to address the following concerns:

- 1) The proposed amendment of 49 C.F.R. §571.3 is requested because GEM would like to explore the development of a new line of neighborhood electric vehicle ("NEV") that would be designed primarily for the transport of property, and thus would be a "truck" under the current definition. The current regulatory definition of low-speed vehicle found at 49 C.F.R. §571.3 unnecessarily restricts GEM's ability to explore such new vehicle designs, and frustrates the ability of the consumer to secure these vehicles.
- 2) The current regulatory definition also impedes the full realization of environmental and energy conservation benefits that would accrue through the continued development of new vehicles.

## **II. DISCUSSION.**

### **A. Background of FMVSS 500**

On June 17, 1998 the Agency published a final rule establishing FMVSS 500 for low-speed vehicles ("LSVs"). 63 Fed. Reg. 33194. Prior to the adoption of FMVSS 500, NHTSA excluded low-speed electric vehicles from FMVSS regulation through the Agency's interpretation of the term "motor vehicle." These interpretations excluded from regulation both:

1. Those vehicles that were not manufactured "primarily" for use on public roads; and
2. Those with "abnormal" configurations and a top speed of 20 mph or less.

Such vehicles were excluded because both categories were not deemed by the Agency to be "motor vehicles" under 49 U.S.C. § 30102(a)(6). See, 62 Fed. Reg. 1077 (NPRM) (January 8, 1997).

FMVSS 500 established safety standards tailored for LSVs as opposed to the alternative of excluding these types of vehicles from the motor vehicle safety standards altogether through

interpretation. The final rule was based on a Notice of Proposed Rule Making (“NPRM”) published in the *Federal Register* on January 8, 1997. 62 Fed. Reg. 1077. The NPRM defined the low-speed vehicle category as “**any motor vehicle**, other than a motorcycle, whose top speed does not exceed 25 mph.” Id. [emphasis added]. The NPRM was intended to provide national uniformity, a “single definition, one that was able to encompass the entire population of golf carts, NEVs, and small vehicles . . . .” Id. at 1081.

In the NPRM, NHTSA proposed to base FMVSS 500 on the common factor of **vehicle speed**, which is the single common characteristic shared by all the small neighborhood vehicles.

The Agency concluded as follows:

“To encompass the wide variety of NEVs [neighborhood electric vehicles], golf carts, and other small vehicles which may be manufactured in the future, NHTSA is proposing creation of a new class of vehicle called ‘low speed vehicle’ (LSV) with a definitional criterion of **speed alone**. LSVs would include **all motor vehicles**, other than motorcycles . . . , whose speed attainable in 1 mile does not exceed 25 mph, regardless of the vehicle’s size or weight.”  
Id. at 1081 [emphasis added].

**B. The Agency Has Recognized That There is No Reasonable Justification for Subjecting Low-speed NEVs to the Full Range of FMVSS**

The National Traffic and Motor Vehicle Safety Act authorizes NHTSA to prescribe only reasonable and “practicable” motor vehicle safety standards. 49 U.S.C. § 30111(a). Since 1969, the Agency has consistently recognized that there is no reasonable justification for subjecting low-speed vehicles like golf carts and mini-bikes to the full range of safety standards that apply to heavier, faster vehicles. 34 Fed. Reg. 15,147 (October 3, 1969). In the 1997 NPRM, the

Agency concluded “that motor vehicle safety does not demand, for the present, a comprehensive and detailed regulatory scheme under which LSVs must comply with the full range of Federal motor vehicle safety standards that apply to faster vehicles.” Id. at 1082. In line with these conclusions, NHTSA adopted FMVSS 500, which removed LSVs from the regular categories of heavier and faster vehicles for purposes of safety. In doing this, NHTSA carried out its regulatory mandate under 49 U.S.C. §30111(a).

However, at the same time that NHTSA was creating a new class of vehicles under FMVSS 500, it also unwittingly created an important inconsistency in the final regulation. Without adequate explanation or justification, the Agency excluded all “trucks” from the definition of LSV in the final rule. 63 Fed. Reg. 33194 (June 17, 1998). The final rule added the following definition to Part 571:

*“Low-speed vehicle means a 4-wheeled motor vehicle, other than a truck, whose speed attainable in 1.6 km (1 mile) is more than 32 kilometers per hour (20 miles per hour) and not more than 40 kilometers per hour (25 miles per hour) on a paved level surface.”*  
49 C.F.R. §571.3(b).

The term “truck” is defined under Part 571 as follows:

*“Truck means a motor vehicle with motive power, except a trailer, designed primarily for the transportation of property or special purpose equipment.”*  
49 C.F.R. §571.3(b).

The exclusion of “trucks” from the LSV definition indicates that NEVs with a maximum speed of 25 miles per hour that are “designed primarily for the transportation of property or special purpose equipment,” see 49 C.F.R. §571.3, will now be included in the class of heavier

and faster passenger vehicles and trucks, and will be subject to the full panoply of Federal Motor Vehicle Safety Standards.

This result is entirely inconsistent with the intent and findings of the Agency as set forth in the NPRM discussed above. This result is also inconsistent with the discussion of intent found in the final rule. For example, the glossary to the final rule defines “Low-speed vehicle” as “*any* 4-wheeled motor vehicle whose top speed is greater than 20 miles per hour, but not greater than 25 miles per hour. This group includes neighborhood electric vehicles, and speed modified golf-cars, whose top speed is greater than 20 miles per hour, but not greater than 25 miles per hour.” Id. at 33195 (emphasis added). This definition did not exclude NEVs designed primarily for transporting property or any other type of vehicle, so long as its top speed was no greater than 25 miles per hour.

The final rule again acknowledges the impracticality of requiring these neighborhood electric vehicles to meet all motor vehicle safety standards.

“Since the application of these FMVSSs to these sub-25 mph passenger-carrying vehicles would necessitate the addition of a considerable amount of structure, weight and cost, such application appears to preclude their production and sale. In addition, given the limited speed capability and relatively controlled operating environments of these vehicles, it does not currently appear necessary from a safety standpoint to design them to meet the full range of passenger car FMVSSs, especially those incorporating dynamic crash requirements.” Id. at 33196.

By referring to the “passenger car FMVSSs,” NHTSA may have been under the mistaken impression that all LSVs were, and would be, passenger cars; were it not for their maximum speed. While there is some indication that NHTSA

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anticipated that there existed, or might exist, certain LSVs that had “work-performing equipment” that should be excluded, neither the preamble to the final rule nor that of the proposed rule, nor any other agency document, indicated an intent to exclude ***all*** trucks.

Finally, the Agency’s Final Regulatory Analysis document that accompanied the final rule, repeats the NPRM’s original definition of LSV and does not indicate that “trucks” would be excluded from the definition. Dept. of Transportation Docket, 98-3949, June 19, 1998. The executive summary of this document defines LSV as “a 4-wheeled motor vehicle, other than a motor vehicle with work performing equipment, whose speed attainable in 1.6 kilometers (1 mile) is more than 32 kilometers per hour (20 miles per hour) and not more than 40 km/h (25 miles per hour) on a paved level surface.” This definition is repeated on pages 1-2, and 7 of this document. The document also states that the Agency has created a “new class of vehicles called ‘low speed vehicle’ with a definitional criterion of ***speed alone***.” NHTSA Final Regulatory Analysis, page 7 [emphasis supplied]. The Final Regulatory Analysis also stated on page 7 that “LSV’s include any 4-wheeled motor vehicle [but] LSVs with work-performing equipment are not subject to Standard No. 500.” This language is consistent with that in the preamble to the final rule where NHTSA indicated that “vehicles with ‘work-performing equipment’” would not be LSVs and that “Under the final rule, these vehicles [meaning those with ‘work-performing equipment’] are no longer included [as] LSVs.” Thus, the justification of the standard in the Final Regulatory Analysis

is simply not consistent with the “truck” exclusion found in the final rule, nor even with the preamble of the final rule itself.

The exclusion of trucks from the LSV category creates a result that is unreasonable, and inconsistent with the Agency’s well documented original justification for FMVSS 500, which most certainly could never have been NHTSA’s intent. Thus, the Petitioner presents to NHTSA this opportunity to correct the inconsistency and include low speed trucks within the definition of LSVs.

#### **C. The Current Truck Exclusion Prevents Realization of the Full Benefits of the LSV Rulemaking**

The practical effect of the exclusion upon the continued development of LSVs is significant. The exclusion will severely limit manufacturers’ ability to fully realize the potential benefits of the LSV rule.

GEM currently manufactures several NEV models; each built on the same chassis, with nearly identical mechanical systems. This line includes two-passenger and four-passenger models with a plastic cargo bin, as well as a two-passenger model that is available with either a short or long metal cargo bed. Each model is designed primarily for the transportation of passengers, with various auxiliary configurations for carrying goods from golf clubs to groceries to garden supplies. GEM would like to expand its line of vehicles to include additional models designed primarily for the transport of property on public roads or special purpose equipment. These new vehicle designs would be “trucks” under the Agency’s regulations. For example, GEM would like to have vehicles designed to serve as small community ambulances, and fire

trucks, which clearly cannot fall within the definition of an LSV now contained in the regulations. The existing definition of LSV unnecessarily restricts GEM's ability to develop these new "truck" models, which would conform in all other respects to the concept of an LSV that lies behind FMVSS 500. Application of all motor vehicle safety standards to the proposed NEV trucks is completely arbitrary because the vehicles are not materially different from their LSV passenger vehicle cousins, and there is no evidence that somehow the vehicles are less safe than those passenger vehicle cousins.

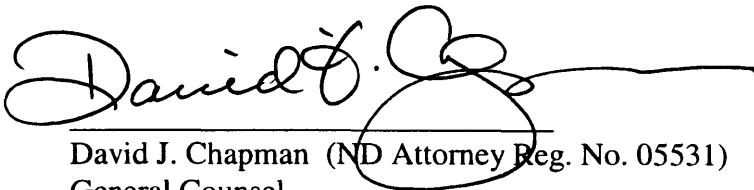
Application of all FMVSSs to LSV trucks is also impractical and prohibitive of development from both the standpoints of design and cost. Requiring these vehicles to meet the federal standards for side impact, front impact and air bags would require a vehicle design that would be too heavy for its intended LSV uses. Likewise, these vehicles will not be cost-effective to produce unless they can be built to comply with FMVSS 500. Perhaps most importantly, excluding truck NEVs from the LSV rule would require these vehicles to meet much more burdensome safety standards with no safety-based justification. The development of these NEV trucks should not be discouraged by requiring them to meet safety standards that the Agency has previously acknowledged are inappropriate, unreasonable and impractical. Expanding the category of LSVs to include small low-speed electric trucks will provide further reductions in traffic and emissions in the neighborhoods that use these vehicles, as originally intended by the FMVSS 500 rulemaking.



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### III. CONCLUSION

Solectria Corporation and the Electric Transportation Coalition petitioned the Agency for reconsideration of these same aspects of FMVSS 500 over a year ago. We urge the Agency to address this issue immediately in order to insure that the NEV market can achieve its full potential as a solution to environmental and energy conservation issues. If you have any questions or comments regarding this petition, please feel free to contact me.



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